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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/604,166	06/28/2003	Rajendra Kashinath Singh	GEPL.P-072	1165
43247	7590	06/07/2006	EXAMINER	
Marina Larson & Associates LLC			YOON, TAE H	
re: lexan			ART UNIT	
PO BOX 4928			PAPER NUMBER	
DILLON, CO 80435			1714	

DATE MAILED: 06/07/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/604,166	Applicant(s) SINGH ET AL.	
	Examiner Tae H. Yoon	Art Unit 1714	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
 - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
 - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 May 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-29 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-29 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 1-29 are rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for the ratio of butyl tosylate and sodium from 1.2 to 24.2 (table 1) and of phosphorous acid and sodium from 6.1 to 12.1 (table 2), does not reasonably provide enablement for the recited language of an acid quencher and a basic catalyst and ratios thereof. The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make the invention commensurate in scope with these claims.

Applicant asserts that Batches 3 and 4 of table 2 would not be the invention, but note that Batch 3 of Table 2 meets the recited molar ratio of an acid quencher and a basic catalyst, but fails to meet UL rating. Batch 7 of Table 1 having similar molar ratio to Batch 3 of Table 2 has UL rating of V0. Batch 2 of Table meets the recited molar ratio of 1.2, but it has yielded UL rating of V2. Thus, undue experimentation would be needed for different acid quenchers and basic catalysts and molar ratios thereof in order to see whether UL rating of V0 would be obtained or not.

Claims 7, 9, 21, 23, 27 and 29 recite that acidic quencher is phosphorous acid at a molar ratio of 1 to 15, but applicant failed to show that the ratio of 1 and 15 would yield UL rating of V0, especially since Batch 2 (molar ratio of 1.2) shows UL rating of V2.

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The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-29 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Rosenquist et al (US 6,353,046).

The examiner has stated that anticipation rejection under 102(b) based on Rosenquist et al were withdrawn in the advisory action mailed on April 24, 2006. However, note that a proper anticipation was not formulated in the office action mailed on January 04, 2006, and that is why it was withdrawn.

Rosenquist et al teach the flame retardant polycarbonate containing the instant perfluoroalkane sulfonate and cyclic siloxane in abstract, examples and claims 1-4 and 20-26. Example 2 (tables 2A and 2B) show the instant UL 94 V0 and % haze. A thickness of 75 mil is 1.9 mm. Said example would meet the UL 94 V0 at a thickness of 1.6 mm inherently. With respect to the molar ratio of an acidic quencher and a basic catalyst, the instant claims are directed to a polycarbonate composition, and thus the recited polymerization process for a polycarbonate has little probative value.

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Furthermore, no particular properties or structural limitations for the polycarbonate obtained by the recited process are recited, and different reaction processes such as when and how the acidic quencher are added during and/or after the polymerization would yield different final polycarbonates. However, the claim is silent as to such processes even though it is a product-by-process claim, and thus a burden is on applicant that the instant polycarbonate differs from that of Rosenquist et al. An invention in a product-by-process is a product, not a process. See *In re Brown*, 459 F2d 531, 173 USPQ 685 (CCPA 1972) and *In re Thorpe*, 777 F2d 695, 697, 227 USPQ 964 (Fed. Cir. 1985). **SmithKlein vs. Apotex** (CAFC, 04-1522, 2/24/2006), Once a product is fully disclosed in the art, future claims to that same product are precluded, even if that product is made by a new process.

Thus, the instant invention lacks novelty.

Claims 1-29 are rejected under 35 U.S.C. 103(a) as obvious over Rosenquist et al (US 6,353,046) in view of Sakashita et al (US 5,606,007) and Mestanza (US 6,136,945).

Rejection is maintained for reason of record with following response.

Even if the recited process were to have any probative value, Rosenquist et al teach that the method of making a polycarbonate is well known in the art and Sakashita et al (US 5,606,007) at col. 2, line 14, and thus the use of such polycarbonate of Sakashita et al is a *prima facie* obviousness.

Applicant assert that the examiner has ignored the recited "wherein components (a) and (b) work in combination such that the composition achieves a V0 UL flammability rating at a thickness of 2 mm and has a haze of no more than 1%", but such assertion lacks probative value since the examiner has pointed out such flammability rating and % haze taught by Rosenquist et al.

Applicant asserts that he has demonstrated a conclusion of non-obviousness reasonably and that the examiner failed to provide rebuttal, but the examiner disagrees with such assertion since the examiner has provided various reasons in the final rejection and advisory action.

Applicant asserts that the showing of two acidic quencher and sodium salt of claim 2 would have a probative value, but the examiner disagrees since batch 2 of table 1 clearly shows that a ratio 1.2 for butyl tosylate and sodium falling within the claimed molar ratio does not yield UL rating of V0, but V2. The similar logic is applied to phosphorous (molar ratio of 18.3) based on batch 3 of table 2. Thus, more showing would be needed and the broadly recited claimed language and narrow and/or confusing showings do not overcome the rejection.

Applicant further asserts that claims 6-9, 12-15 and 20-23 (and new claims 26-29) are directed to a sodium salt and specific acid quenchers, and that the examiner's arguments are inconsistent. But, the examiner disagrees with such assertions since, for example, a combination claims 6, 1 and 2 would yield butyl tosylate added in a 1 to 30 fold molar ratio with a sodium salt, and table 1 does not show any unexpected result thereof as pointed out in previous office action and above (112, 1st and anticipation

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under Rosenquist et al). Also, for example, a combination claims 21 and claims 16-20, 1 and 2 would yield phosphorous acid added in a 1 to 15 fold molar ratio with a sodium salt, and table 2 does not show any unexpected result thereof as pointed out in previous office action and above (112, 1st and anticipation under Rosenquist et al). The showing (molar ratio of 6.1 to 12.1) is narrower than the recited molar ratio of 1 to 15.

Claims 1-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mark et al (US 4,130,530) in view of Rosenquist et al (US 6,353,046) and Nouvertne (US 3,775,367), and further in view of Sakashita et al (US 5,606,007) and Mestanza (US 6,136,945).

Rejection is maintained for reason of record with above response.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tae H. Yoon whose telephone number is (571) 272-1128. The examiner can normally be reached on Mon-Thu.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vasu Jagannathan can be reached on (571) 272-1119. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Tae H Yoon
Primary Examiner
Art Unit 1714

THY/May 22, 2006